

Motorized Butterfly Valve

Actuated Wafer type butterfly valves

PRODUCT DATA



FEATURES

- Wide size range (DN 50...DN350)
- For On-Off or Modulating Control
- Manual override non-clutch design. Manual operation can be operated without any lever, clutch or brake upon power voltage.
- Irreversible worm gear.
- Visual mechanical position indicator for accurate visual reference of valve position.
- Anti-condensation heater and 2 aux. limit switches on standard model
- Enclosure IP67

SPECIFICATIONS

Valve

Sizes	DN50...DN350 (Wafer Type)
Nominal pressure	PN25
Tightness	Bubble tight
Medium Temperature	-10°C ~ +90°C Maximum
Body Material	GGG40
Disc Material	Epoxy coated ductile iron GGG40
Liner Material	EPDM
Medium Type	Chilled and Hot water
Pipe Connection	ISO7005-2

Actuator

Power Supply	220Vac, 50/60 Hz
Running time	See table (1)
Travel Angle	90° ± 5°
Input (Modulating)	4~20mA, 1~5V, or 0(2)~10V select by DIP-switch
Enclosure	IP67 Waterproof
Ambient Temperature	-5°C to +65°C
Indicator	Continuous Position Indicator
Manual Override	Non-clutch design
Worm Gear	Permanently lubricated and self locking
Space Heater	15W 220V Anti-condensation
Material	Aluminum Alloy
External Coating	Dry powder coating
Stall Protection	Built-in thermal protection Cut off at 125 ± 5°C Reset at 95 ± 5°C

GENERAL

The V4 Actuated Wafer Type Butterfly Valves are suitable for heating and cooling applications.

The V4 series is equipped with standard On-Off or modulating (4~20mA, 1~5V, or 0(2)~10V select by DIP-switch) control quarter-turn electric actuator.

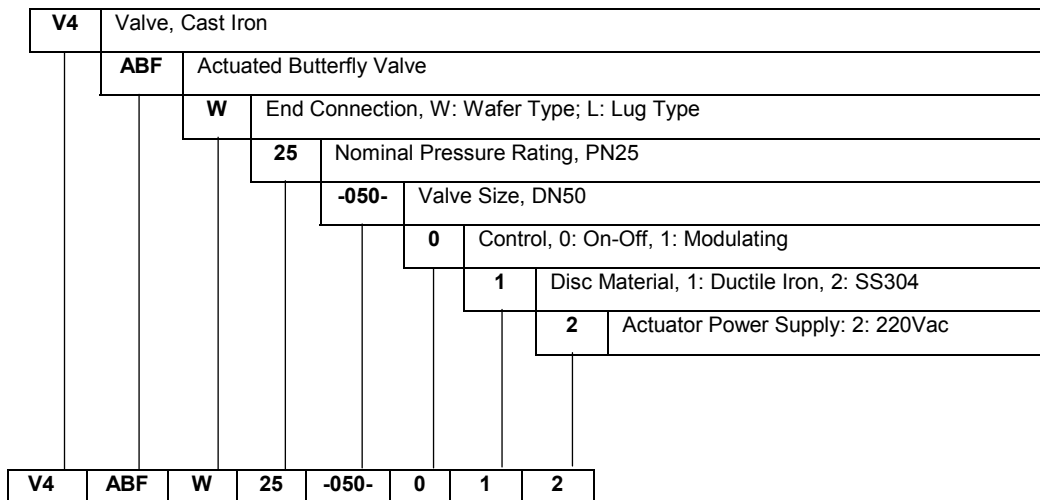
Table (1) Control Type and Valve Size Data

The below table is based on differential pressure of 10 bar.

Valve Size	OS# (On-Off)	Actuator OS#	OS# (Modulating)	Actuator OS#	Max Torque (Nm)	Run Time at 60Hz (sec)	Power (Watts)	Manual Override	Kvs (m ³ /h)
DN50	V4ABFW25-050-012	OM-1	V4ABFW25-050-112	OM-P1	35	12	10		109
DN65	V4ABFW25-065-012	OM-1	V4ABFW25-065-112	OM-P1	35	12	10		177
DN80	V4ABFW25-080-012	OM-2	V4ABFW25-080-112	OM-P2	90	15	40	Hand-wheel	243
DN100	V4ABFW25-100-012	OM-2	V4ABFW25-100-112	OM-P2	90	15	40	Hand-wheel	483
DN125	V4ABFW25-125-012	OM-3	V4ABFW25-125-112	OM-P3	150	22	40	Hand-wheel	822
DN150	V4ABFW25-150-012	OM-3	V4ABFW25-150-112	OM-P3	150	22	40	Hand-wheel	1,270
DN200	V4ABFW25-200-012	OM-4	V4ABFW25-200-112	OM-P4	400	16	120	Hand-wheel	2,550
DN250	V4ABFW25-250-012	OM-4	V4ABFW25-250-112	OM-P4	400	16	120	Hand-wheel	4,342
DN300	V4ABFW25-300-012	OM-6	V4ABFW25-300-112	OM-P6	650	28	120	Hand-wheel	6,708
DN350	V4ABFW25-350-012	OM-7	V4ABFW25-350-112	OM-P7	1,000	46	180	Hand-wheel	9,793

Figure (1) Product Identification System

The labeling system for Honeywell butterfly valves is as follows:



e.g.: Butterfly Valve, Cast Iron Valve Body, Wafer End Connection, PN25 Nominal Pressure, DN50 Size, On-Off Control, Ductile Iron Disc, 220Vac Actuator.

Table (2) Hydraulic Characteristics

The below table shows the Kvs at different opening angles:

Size	Kvs at Disk Opening Angle								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
50	0.08	4.0	10	19	36	51	72	101	109
65	0.16	6.4	16	30	52	79	116	164	177
80	0.24	9.7	18	31	56	93	147	221	243
100	0.40	14	29	63	112	185	293	439	483
125	0.64	23	49	107	191	315	499	748	822
150	1.6	36	76	165	294	487	771	1,156	1,270
200	2.4	72	153	332	591	977	1,547	2,321	2,550
250	3.3	123	260	564	1,006	1,664	2,634	3,951	4,342
300	4.1	190	402	872	1,554	2,571	4,070	6,104	6,708
350	4.7	278	588	1,273	2,269	3,754	5,941	8,911	9,793

Table (3) Actuator Data

OS# On-Off	OS# Modulating	Max Torque (Nm)	Run Time at 60Hz (sec)	Power Consumption (Watts)	Manual Override	Weight (Kg)
OM-1	OM-P1	35	12	10		2
OM-2	OM-P2	90	15	40	Hand-wheel	11
OM-3	OM-P3	150	22	40	Hand-wheel	11
OM-4	OM-P4	400	16	120	Hand-wheel	22
OM-5	OM-P5	500	22	120	Hand-wheel	22
OM-6	OM-P6	650	28	120	Hand-wheel	22
OM-7	OM-P7	1000	46	180	Hand-wheel	36
OM-8	OM-P8	1500	46	220	Hand-wheel	36
OM-9	OM-P9	2000	58	180	Hand-wheel	56
OM-10	OM-P10	2500	58	220	Hand-wheel	56
OM-11	OM-P11	3000	58	250	Hand-wheel	56
OM-12	OM-P12	3500	58	300	Hand-wheel	56

INSTALLATION

WARNING!

Remove power before the cover is dismantled!
The actuator must be handled with the utmost care when the cover is removed and the power connected!

MOUNTING ON VALVE

Operate the valve manually to fully opened or fully closed position before the actuator is mounted.

Operate the actuator and valve stem to fully opened or fully closed position.

Check that the actuator and valve stem are in correct position. Please note, valve and actuator must be in the same mode (fully opened/fully closed) prior to the assembly.

Mount the actuator on the valve and check that the actuator and valve stem are centered and aligned.

Operate the valve manually with the aid of the actuator hand-wheel and check that the valve moves with normal resistance.

Check that all screws are correctly tightened.

ELECTRIC WIRING

Note:

Electric wiring must be carried out by qualified personnel only!

Wiring diagram is also shown on the label of top cover.

Loosen the screws on the cover and lift it off.

Check the voltage marked on the actuator label.

Connect according to the enclosed wiring diagram or if the actuator is of standard design, according to the wiring diagram below. The wiring diagram is drawn in unaffected position (the valve in the intermediate position).

Test run the actuator from intermediate position checking that the actuator turns in the correct direction.

Test run the actuator and check that the limit switches work correctly.

Check that the cable entries and possible blind plug are sealed.

Mount the cover.

Honeywell

Automation and Control Solutions

Honeywell Taiwan Ltd.
9F, 168 Lien Cheng Road
Chung Ho City, Taipei County, Taiwan
Phone: +886-2-2243 1653
Fax: +886-2-2243 1244

Subject to change without notice. Printed in Taiwan